CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

ORDER NO. 88-033
NPDES NO. CA0029327

WASTE DISCHARGE REQUIREMENTS FOR:

SOUTHLAND CORPORATION
5778 REDWOOD HIGHWAY
IGNACIO, MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. The Southland Corporation, (hereinafter called the discharger), owns and operates a retail fuel service station located at 5778 Redwood Highway, Ignacio, Marin County. By application dated 3/10/87, the discharger has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. Site investigations show that the groundwater beneath the site has been polluted by floating gasoline fuel, and dissolved benzene, toluene, xylene, ethyl benzene, tert butyl methyl ether, lead and ethylene dibromide. The source of the leak has not been definitively identified. Several possibilities exist including loose fittings in the regular unleaded fuel tank discovered on 7/17/86, a leak in the vapor recovery lines discovered on 9/8/86 and routine overspills.

3. Twenty monitoring wells and three soil borings have been installed on the site. Groundwater monitoring data indicates that the aerial extent of the free product and dissolved product plumes appears to be defined, however confirmatory data has not been submitted. Additional soil and groundwater investigation may be necessary. Free product thickness ranges from 0 - 2.19 feet. Soil pollution at the site appears to be confined to the tank pit area. The contaminated soils have not been remediated.

4. 2000 gallons of free product gasoline have been removed from the monitoring wells on site. Currently, small quantities of free product are being removed from the wells by hand bailing. The discharger seeks to clean up and prevent the further migration of the free floating gasoline fuel by recovering the free prodict via two extraction wells each

using a water table depression pump and a pump to recover the free product. The extraction system is designed to achieve hydraulic control of the plume and to remediate the free product and dissolved constituent plumes. However, additional work, such as a pump test is necessary to confirm that the extraction wells can establish hydraulic control of the pollutant plume. Data collected during the first 30 days of system performance will be used to evaluate the effectiveness of the pump and treat system. A report describing this performance evaluation will be submitted within 90 days of system startup.

5. Waste 001 will consist of a maximum flow of 7200 gallons per day (gpd) and an average flow range of 720 - 2880 gpd. The polluted groundwater will be pumped from two recovery trenches with a central recovery well in each. Each recovery well contains a filter scavenger and water table depression pump. The filter scavenger will pump free product from the recovery trench to an above ground holding tank prior to disposal. Polluted groundwater will be pumped to an air stripping tower and discharged to an unlined drainage ditch tributary to Pacheco Creek. Water from Pacheco Creek flows into Pacheco Pond and to San Pablo Bay.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Pacheco Pond and San Pablo Bay and contains discharge prohibitions applicable to shallow water discharges in these areas.

7. The existing and potential beneficial uses for Pacheco Pond are:

    Cold fresh water habitat
    Warm fresh water habitat
    Wildlife habitat
    Fish spawning
    Non-contact recreation

8. The existing and potential beneficial uses of San Pablo Bay include:

    Navigation
    Commercial and sport fishing
    Preservation of rare and endangered species
    Fish spawning and migration
    Wildlife habitat
    Shellfish harvesting
    Estuarine habitat
    Contact and non-contact water recreation
    Industrial service supply

9. During the months of limited rainfall it is anticipated that the discharge will percolate into the bed of the unlined

drainage ditch, and recharge the shallow groundwater. Effluent limits of this Order are anticipated to preclude adverse impacts on ground water beneath the unlined drainage ditch.

10. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point in San Francisco Bay south of the Dumbarton Bridge" and (b) "at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof."

11. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 11 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

12. Exceptions to the prohibitions referred to in Finding 11 are warranted because the discharge is an integral part of a program to cleanup contaminated groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would affect beneficial uses.

13. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's dewatering and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

14. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies and best engineering judgment.

15. The issuance of waste discharge requirements for the discharge is exempt from the provisions of Chapter 3 (commencing with Section 15000), Division 6, Title 14, (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 13389 of the California Water Code.

16. The issuance of waste discharge requirements for the discharge is categorically exempt from the provisions of Chapter 3, (commencing with Section 15000), Division 6, Title 14 (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 15107 of that Chapter (Class 7: Actions by Regulatory Agencies for Protection of Natural Resources).

17. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit

their written views and recommendations.

18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and Guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The effluent at the point of discharge to the unlined drainage ditch shall not contain constituents in excess of 1% of the influent concentrations, or in excess of following limits, whichever is less:

Constituent	Unit	Instantaneous Maximum
benzene	ug/l	5.0
toluene	ug/l	0.2
xylenes	ug/l	5.0
ethylbenzene	ug/l	5.0
total petroleum hydrocarbons as gasoline	ug/l	50.0
lead	ug/l	5.6
ethylene dibromide	ug/l	0.1
tert butyl methyl ether	ug/l	5.0

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. In any representative set of samples, the discharge of waste shall meet the following limit of quality:

TOXICITY:

The survival of test fishes acceptable to the Executive Officer in 96-hour bioassays of the effluent as discharged shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin:

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or water fowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	pH:	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.
b.	Un-ionized Ammonia:	The concentration of un-ionized ammonia shall not exceed a maximum at any time of 0.4 mg/l as N and an annual median of 0.025 mg/l as N.
c.	Dissolved oxygen:	5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations (s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

3. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or

approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

Provisions

1. The discharger shall comply with all sections of this Order immediately upon discharge.

2. The discharger shall comply with the self monitoring program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. The discharger shall submit an operation and maintenance plan acceptable to the Executive Officer if chemical additions are made to the waste stream for the control of scaling or biological growth.

5. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated December 1986, except items B.2, B.3, C.8, and C.11.

6. This Order expires March 16, 1993 and the discharger must file a report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

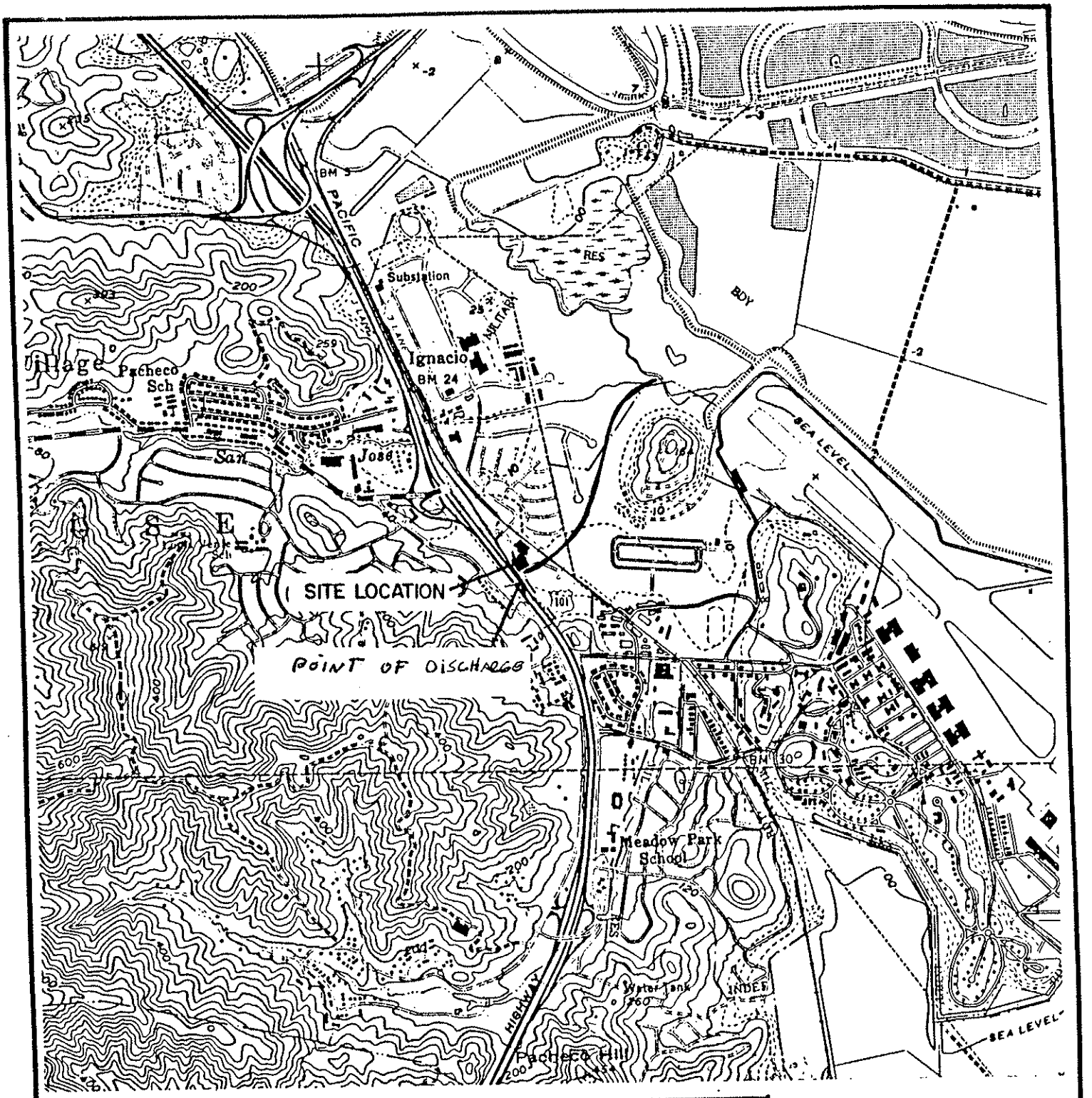
7. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective at the end of ten days from date of hearing provided the Regional Administrator, U.S. Environmental Protection Agency, has no objection.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on March 16, 1988.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting Requirements, December 1986.
Self-Monitoring Program
Site Map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SITE MAP
SOUTHLAND CORPORATION
SUPER -7 SERVICE STATION
5778 REDWOOD HIGHWAY
IGNACIO, MARIN COUNTY

DRAWN BY: LCF	DATE: 1/26/88	DRWG NO. 001

SOUTHLAND
IGNACIO, CALIFORNIA

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Part B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	
I-1	At a point in the groundwater extraction/ treatment system immedately prior to any treatment.

B. EFFLUENT

STATION	
E-001	At a point in the groundwater extraction/treatment system immediately following treatment at a point before discharging into the unlined drainage ditch.

C. RECEIVING WATERS

Station	
C-1	At a point in the unlined drainage ditch at least 100 feet but no more than 200 feet downstream from the point of discharge. If, due to low flow conditions, it is not possible to obtain a water sample in the reach 100 to 200 feet downstream from the point of discharge, then the sample shall be taken from water ponding at the point of discharge. This conditon shall be noted in the periodic reports submitted to the Board.

II. MISCELLANEOUS REPORTING

At least 30 days before any chemicals are utilized in or added to the treatment system, they shall be reported to the Executive Officer for review and approval.

III. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

TABLE 1
SCHEDULE FOR SAMPLING, MEASRUEMENTS, AND ANALYSIS

SAMPLING STATION >>>>	I-1	E-1	C-1	
TYPE OF SAMPLE	G	G	G	
Flow Rate (gal/day)		D	M	
pH (units)	D/M	D/M	D/M	
Temperature (deg. C)	D/M	D/M	D/M	
Dissolved Oxygen (mg/l and % saturation)	D/M	D/M	D/M	
Electrical Conductivity	D/M	D/M	D/M	
Priority Pollutant Metals	W/Q/A	W/Q/A	W/Q/A	
Lead	D/W/M	D/W/M	D/W/M	
EPA METHOD 504 Ethylene Dibromide	D/W/M	D/W/M	D/W/M	
EPA 602 for: Benzene Toluene Total Xylenes Ethyl Benzene Tert-Butyl-Methyl-Ether	D/W/M	D/W/M	D/W/M	
Modified EPA 8015 for Total Petroleum Hydrocarbons as Gasoline as per SF Bay RWQCB Fuel Leak Guidelines	D/W/M	D/W/M	D/W/M	
EPA 624	BA	BA		
Toxicity		A		

LEGEND FOR TABLE 1 IS ATTACHED

LEGEND FOR TABLE 1

G = grab sample
D = once each day, calculated from weekly continuous flow readings.
M = once each month
D/M= daily for five days; monthly thereafter.
W/Q/A= once during the first week, then quarterly for 1 year; annually thereafter.
D/W/M= sample 3 hours after system startup; every 24 hours thereafter for five days; then, weekly until sufficient data is collected to determine that the treatment system is operating reliably, and monthly thereafter. The determination that the system is operating reliably will made by the Executive officer of the RWQCB.
BA= once during first day of operation; biannually thereafter.
A= once during first week of operation; annually thereafter.

IV. MODIFICATIONS TO PART A

All items of Self Monitoring Part A, dated December 1986 and as modified January 1987 shall be complied with except for the following modifications:

A. Delete Sections D.2.d, D.2.g, E.1.e, and E.4.

B. Add the following as Section F.4:

"4. A tabulation shall be maintained showing the total quarterly volume of spent activated carbon (in cubic feet) from each treatment unit and the disposal site location.

C. Section G.4.b shall be changed to read as follows:

Compliance Evaluation Summary

"Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared similar to the example shown in APPENDIX A (attached). The discharger will prepare the format substituting for the example parameters those parameters and requirement limits for influent, effluent and receiving water constituents specified in the permit."

D. The first paragraph of Section G.4.d. shall be changed to read as follows:

"Each report shall include tabulations of the results from each required analysis specified in Part B by date, time, type of sample, detection limit, station, and shall be signed by the laboratory director. The report format will be prepared similar to the examples shown in APPENDIX B, substituting those parameters specified in the permit for the parameters given in the example."

E. Information requested under Section G.4.e shall be prepared in a format similar to EPA Form 3320-1 and shall be submitted only to the Regional Board.

F. Section G.5 shall be modified to read as follows:

Annual Reporting

By January 30 of each year, the discharger shall submit in place of the end of the year monthly report, an annual report to the Regional Board covering the previous calender year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the

report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX D (attached) substituting those parameters specified in the permit for the parameters given in the example and should be maintained and submitted with each regular self-monitoring report."

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharger requirements established in Regional Board Order No. 88-033.

2. Was adopted by the Board on March 16, 1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.

Roger B. James
Executive Officer

Attachments: Table 1
Appendices A - E